

What Is Claimed Is:

1. A plasmid prepared by recombinant techniques having the construct shown in Figure 1.
2. An antigen protein encoded by the plasmid
5 of claim 1.
3. A protein (V antigen) capable of inducing a protective antibody of (anti-V antigen).
4. A method of controlling the effects of *Y. pestis* on mammals comprising the steps of:
10
 - a) providing a vaccine comprised of the protein of claim 2; and
 - b) treating a mammal in need thereof with an effective anti *Y. pestis* amount of the vaccine.
5. A method of treating a mammal comprising
15 the steps of:
 - a) providing a composition comprised of a protein encoded by the plasmid of claim 1; and
 - b) treating a mammal in need thereof with an effective anti-inflammatory amount of the composition.
6. A method of immunizing a mammal against
20 *Y. pestis* comprising the steps of:
 - a) providing a composition comprised of the determinants of *Y. pestis*; and
 - b) treating a mammal in need thereof with an
25 effective immunizing amount of the composition.
7. A plasmid prepared by recombinant techniques comprised of an ability to encode proteins

capable of controlling the effects of *Y. pestis*, the plasmid containing low calcium response regions V and H and the structural gene for staphylococcal protein A.

5 8. An antigen protein encoded by the plasmid of claim 7.

 9. A method of controlling the effects of *Y. pestis* on mammals comprising the steps of:

- a) providing a vaccine comprised of the protein of claim 8; and
- 10 b) treating a mammal in need thereof with an effective anti *Y. pestis* amount of the vaccine.